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THE STRENGTH OF THE GERMAN ARMED FORCES,

1 SEPTEMBER 1944

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Description

An analysis of the differences among various estimates of the strength of the German Armed Forces and of their reliability.

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18 September 1944

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SUMMARY

1. Quantitative appraisal of the actual strength of the German Armed Forces has been one of the least successful phases of British and American intelligence during the war.

2. Official British and American estimates of actual strength have been based on the prescribed, or Table of Organization (TO) strength of units, concerning changes in which the Allies do not have immediate knowledge, and which, in any event, the German High Command has not been able to maintain.

3. Evidence of reductions in the prescribed (TO) strength of the German Army leads to the conclusion that the prescribed (TO) strength as of 1 June 1944 was 5,491,000, as compared with the MIS estimate (based on prescribed (TO) strength) of 7,200,000 for 1 April 1944.

4. Actual strength of the German Army as of 1 June 1944 is estimated at 5,078,000.

5. Actual strength of the German Armed Forces (Army, Navy, and Air Force) as of 1 June 1944 is estimated at 7,228,000.

6. A further net decline of 880,000 in Army strength between 1 June and 1 September 1944 has reduced actual Army strength as of the latter date to 4,198,000.

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THE STRENGTH OF THE GERMAN ARMED FORCES, 1 SEPTEMBER 1944

I. INTRODUCTION

Quantitative appraisal of the strength of the German Armed Forces falls into two distinct but inter-related categories, (1) determination of the number and disposition of the units of the German Armed Forces, and (2) estimates of the total actual strength of the German Armed Forces.

The distinction between the two categories lies in the fact that, if the actual size of the various units falls below the size prescribed in the Table of Organization (TO), determination of the number of the units alone cannot yield an accurate figure for total actual strength.

Until the summer of 1942, the appraisal of this aspect of German strength, both for number of units and for total actual strength, was the least successful phase of British and American intelligence during the war. OSS criticized these early Allied estimates of the German position in a memorandum[1] of 9 February 1943.

Beginning about August 1942 there was a distinct

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1. Memorandum No. 103, Are British War Office and MIS Estimates of German Strength Reliable?, Labor Supply Section, Europe-Africa Division, R & A.

improvement in Allied information on the number and disposition of German units. This improvement was related to organizational changes in MIS, and to the work of Polish Intelligence. There was, however, no corresponding improvement in estimates of actual numerical strength. Indeed, no systematic work on this question was undertaken, either in London or in Washington. No paper has been prepared by any British or American agency which purports to give systematic treatment to the actual numerical strength of the German Armed Forces.

British and American estimates of the German position were so widely divergent by March 1943 as to prevent any combined appraisal of German capabilities. The JIC Subordinate Committee on German Manpower was therefore set up in the spring of 1943. The Committee was instructed to resolve the conflicts on the subject among the American agencies, and to reach an agreed position with the corresponding British committee.

The Committee during its year of operation did an enormous amount of solid work on German manpower. It did not, however, make much progress on the question of the actual strength of the German Army. The MIS representatives took the view that no method of estimating German actual strength existed, and they recommended the use of

prescribed strength (TO) estimates as the safest basis for appraising the German military manpower position. This course was urged despite the fact that a true picture of the manpower position can be presented only by calculations of actual strength. As has been pointed out above, failure to meet TO requirements, or changes in TO requirements, will directly affect actual strength and the manpower position as a whole, but such effects are not reflected in any calculation which accepts previous TO requirements as the actual strength of various units. Experience has indicated a marked lag between changes in prescribed (TO) strength and Allied knowledge of them; changes in actual strength, on the other hand, precede and make necessary the changes in prescribed (TO) strength.

The OSS representatives were less pessimistic about the possibility of making estimates of actual strength, but it was thought that OSS lacked a mandate to work on this subject.

The MIS representatives have been most reluctant to concede any reduction in their figures for German actual strength which are based on acceptance of prescribed (TO) strength.

As late as 4 July 1944, MIS gave the numerical

strength of the German Army on 1 April 1944 as 7,200,000 (almost 2,000,000 more than the OSS estimate[1]). This compared with their estimate of 6,950,000 for 1 October 1943. On general grounds it would be hard to understand how in a year of heavy defeats which destroyed the offensive power of their armies, the Germans could have increased the strength of their ground forces by a quarter of a million men. Furthermore, their is a considerable amount of concrete evidence that there was no such increase in strength, but on the contrary a substantial decline.

It is true that the evidence for German actual strength is not as abundant or as conclusive as might be hoped.[2] This situation is due in part to the inherent difficulties of the subject. Yet these difficulties are not greater than others which have been satisfactorily resolved in estimating German tank and aircraft production, the German food position, and the German oil position. The main reason for the unsatisfactory status on this question is neglect.

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1. The OSS estimate and the evidence supporting it are presented in Section II of the present report.

2. The available evidence is presented in the following section.

From such evidence as is available to OSS, the maximum actual strength of the German Army on 1 June 1944 is estimated at 5,078,000, compared with the MIS estimate of 7,200,000 for 1 April 1944. It appears that the MIS estimate, which agrees with that of the British JIC, is higher than the OSS estimate by about 30 percent.

Material is not available to support an independent estimate of the German Air Force or Navy. For these services, it has been necessary to follow the British estimates, which give Air Force and Flak as 1,785,000 and the Navy as 365,000 on 1 April 1944. The Air Force estimate seems extremely high in the light of the increasing utilization of the German Air Force personnel for ground operations with the Army, a trend which has been evident since the beginning of 1943.

Accepting the British estimates of Air Force and Navy for working purposes yields the following estimate for the German armed forces as a whole:

Army	5,078,000
Air Force	1,785,000
Navy	365,000
Total	7,228,000

This should probably be considered an upper limit for each branch of the service for 1 June 1944.

Between 1 June 1944 and 1 September 1944, it is estimated that there was a further net decline in Army strength of 880,000; remaining actual strength of the Army on 1 September 1944 is therefore estimated at 4,198,000.

The OSS estimate of the actual strength of the German Army, and the evidence which supports it, are presented in full in the following section.

II. THE STRENGTH OF THE GERMAN ARMY

No information is available on the overall strength of the German Armed Forces. In the absence of overall figures, estimates of the strength of the German Army have been built up from (1) identification of individual units; (2) the prescribed strength of individual units; and (3) the relationship between prescribed and actual strength. There is strong current evidence available on point (1). Evidence on point (2) is in part inexact and obsolete while that on point (3) is highly fragmentary.

The German order of battle as of 1 June 1944 is

estimated as follows:

Type of Unit	Number
Army	19
Offensive Corps	63
Defensive Corps	8
Panzer Division	31
Motorized Division	14
First-line Infantry Division	138
Second-line Division	100
Mountain Division	11
Light Division	11
Cavalry Division	2
Paratroop Division	5

In addition to the above units, Germany has training, administration, and garrison troops in Germany and administration troops in German-occupied Europe. No definitive order of battle exists for these troops.

As of 1 June 1944, the prescribed strength of the units listed above is estimated as follows:

Army	30,070[a]
Offensive Corps	4,385[a]
Defensive Corps	1,500[a]
Panzer Division	16,000
Motorized Division	15,000
First-line Infantry Division	12,000
Second-line Division	10,000
Paratroop Division	9,000
Mountain Division	16,000
Light Division	13,000
Cavalry Division	16,000

a. MIRS/APPREC/45/44

From the standpoint of total number involved,

the important categories above are First-line Infantry Divisions and Second-lind Divisions. The discussion which follows will be concentrated on points of significant difference between the present estimate and the agreed US-British position. The official position is that at least the majority of German First-line Infantry Divisions have a prescribed (TO) strength of approximately 17,000 men. For the Second-line German Divisions, the official position is as follows: Three-regiment Infantry (16,000), Two-regiment Infantry (13,000), Reserve Division (16,000), Field Training Division (16,000), Foreign Division (14,000). These estimates are believed to be too high.

The most recent official estimates of the prescribed (TO) strength of German First-line Divisions differentiate between 9-battalion and 6-battalion units. The strength of the former is put at 17,000 men and the latter at 13,000 men. The official position is that up to 1 April 1944 one-third of the German First-line Infantry Divisions were of the 6-battalion type and the remainder of the 9-battalion type.[1] There is substantial evidence that the reorganization of German Infantry Divi-

1. JIC 141/4 9 May 1944.

sions has been carried much further. Captured German documents[1] dated 1 October 1943 indicated the following changes in the organization of Infantry Divisions:

(1) Reduction of the size of Infantry regiments to two battalions plus 9th and 10th companys
(2) Reduction of artillery regiments to two light battalions and one medium battalion
(3) Various reductions in other divisional units.

Other documents[2] available are similar in substance. Orders to transfer one battalion out of each regiment in the West to the East first was reported last winter from several sources.[3]

Evidence of the reorganization of Infantry Divisions to a 6-battalion basis is available also in the form of reports on particular units: This change is known to have included the following Divisions: 94, 305, 334, 111, 71, 272, 362, 264. This reorganization of the German Army has taken place in circumstances parallel to those of 1918.

The testimony of General von Kuhl during the official inquiry into the causes of the German collapse

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1. AFHQ Intelligence Notes #41
2. OB 11,067; 11,084; 12,347; 8146
3. OB 7499 and 8504; OSS 26387

in the last war revealed that the reduction of the prescribed (TO) strength of combat units of the Field Army in 1918 was undertaken in the first instance to "regularize" irreplaceable personnel losses. The strength pattern of the Field Army in 1918 was one of a continuous inability to maintain units at full prescribed (TO) strength even after successive downward revisions of prescribed strength. No evidence exists in support of the view that the reorganization of German units during the past nine months has been motivated by tactical considerations. All evidence points to an acute and persistent manpower shortage which the High Command has recognized by a substantial reduction of prescribed (TO) strength. It is estimated that as a result of this reorganization the prescribed (TO) strength of First-line Infantry Divisions is 12,000 men.

Practically all German Second-line Division (three-regiment infantry, two-regiment infantry, reserve, coast-defense, security, field-training, foreign, and airforce) have a prescribed (TO) strength of about 10,000 men. The official position assigns higher prescribed (TO) strength to the following types: three-regiment infantry, two-regiment infantry, reserve, field-training, and foreign. The first two types listed above comprise divisions which have been, in practically every case, stationed continu-

ously in western Europe. /As noted above, (P. 3, note 2) the strength of these divisions has been drawn off to meet the manpower needs of the Eastern Front/ The divisional establishments in many cases were originally deficient in service troops, artillery, engineers, signals, etc.[1] These units cannot be equated numerically with First-line Divisions and must be considered as having a lower prescribed (TO) strength.

Field-Training and Reserve divisions have no prescribed (TO) strength within the precise meaning of that term. As training units, the strength of such divisions must necessarily fluctuate with the military needs of the moment. Given the recent pressing need for military manpower following on the full mobilization of the previous years, it is a reasonable conclusion that the strength of training units has been relatively low. The intensive German use of the Marschbatallion and the use of certain Reserve Divisions in combat since the invasion of western Europe indicate the highly elastic nature of the German training establishment. The occupation function of the Reserve Division has been a matter of secondary importance and has imposed no numerical requirements of an order

1. The original 15 divisions of the "700" series, for example.

equal to those of a First-line Division. The present estimate of 10,000 men per division is a generous figure.

Foreign Divisions in the German Army number no more than four. While it is probable that in no case has one of these units been at full strength, it should be noted that the prescribed (TO) strength in each case approximates that of German divisions. As the prescribed (TO) strength of these units is of nominal significance only, these units have been calculated at a base strength of 10,000 men each.

The MIRS estimates of German non-Field Army troops on garrison and administrative duties in the occupied countries are accepted in this appraisal. The MIRS figure of 956,000 for troops in Germany is, however, believed to be too high. Divisional strength in Germany is non-existent. Two categories in the MIRS figure -- OKH troops and Miscellaneous HQs -- amount to 330,000 men or roughly one-third of the total estimate. These figures seem to be excessive, and unit identifications and establishment figures in other categories seem to be highly generous as well in view of the complete absence of a combat establishment or strategic reserve in Germany. The OSS estimate given below of 600,000 troops in Germany

is speculative. The figure does not include men on furlough in Germany as these troops are accounted for in other categories.

The following table shows estimated prescribed (TO) strength of the German Army of all categories in active and non-active theaters, for 1 June 1944:

Area	Prescribed (TO) Strength
Eastern Front	2,691,000
Finland	133,000
Norway	149,000
Denmark	67,000
Holland	54,000
France-Belgium	823,000
Italy	371,000
South East Europe	367,000
Germany	600,000
Poland	204,000
Unlocated Divisions	32,000
Total	5,491,000

The prescribed (TO) strength shown in the preceeding table sets a ceiling on the strength of the German Army. The German experience of 1918 and general reasoning on the present German position on 1 June 1944 was well below prescribed (TO) strength. The Soviet General Staff,

in an estimate which appears to apply to about 15 August 1944 gave average divisional strength as 8,000 men.[1] Allowing for losses suffered between 1 June and 15 August, the average divisional strength on the earlier date is estimated to have been 10,000. Actual strength in other theaters probably did not on the average fall below prescribed (TO) strength as estimated above. Over-all actual strength of the army for 1 June 1944 would thus be:

Area	Actual Strength
Eastern Front	2,278,000
Finland	133,000
Norway	149,000
Denmark	67,000
Holland	54,000
France-Belgium	823,000
Italy	371,000
South East Europe	367,000
Germany	600,000
Poland	204,000
Unlocated Divisions	32,000
Total	5,078,000

1. From US Military Mission, Moscow, 1 September 1944.

Regardless of the extent of the disparity between actual and prescribed (TO) strength, a further point of some importance should be noted. Analysis of the German order of battle reveals that no strategic reserve remains at the disposal of the High Command. During the past nine months a radical downward revision of the strength of combat units has had to be instituted, units in non-active theaters have been stripped of personnel, and the airforce has had to supply extensive drafts of personnel to the army. Combat units of the Field Army are thus in the position of having to undertake heavier military commitments than ever before and face the impossible task of achieving tactical self-sufficiency with an inadequate prescribed (TO) strength.

Between 1 June 1944 and 1 September 1944, the German Army suffered a series of heavy defeats and signs of disintegration began to appear. Permanent losses during these three months are estimated at 1,030,000 including 530,000 prisoners. The total of prisoners taken in the past three months is almost equal to the number captured from 1 September 1939 to 1 June 1944. Of the prisoners captured in the period 1 June - 1 September 1944, 306,000 were taken in the ETO and MATO and 224,000 on the Eastern Front.

Recruitment was probably limited in the main to the incoming class, numbering about 45,000 men per month; the total for three months would not be over 150,000. The indicated decline in strength is 880,000, and remaining actual strength of the army on 1 September 1944 is estimated at 4,198,000.

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ACTUAL STRENGTH OF THE GERMAN ARMY

1 SEPTEMBER 1944

Description

This study is an estimate of the actual strength of the German Army and discusses the relationship between Table of Organization requirements and actual strength.

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9 September 1944.

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ACTUAL STRENGTH OF THE GERMAN ARMY, 1 SEPTEMBER 1944

The actual strength of the German Army on 1 September 1944 is estimated at 4,253,000 men, as contrasted with estimates of 5,078,000 for 1 June 1944 and a peak strength of 7,200,000 for 1 June 1941.

The estimate for 1 June 1944 given above is approximately 2,000,000 lower than those of the American MIS and the British War Office. The difference between the estimates is explained by the fact that, while there is substantial agreement on the number and type of divisional units in the German Army, the MIS and War Office estimates accept as the size of the various units the requirements of the German Table of Organization (TO). The present estimate, on the other hand, is based on figures for strength per unit lower than those required by the German TO, since it is believed that the German Army has not been able in the face of heavy permanent losses to maintain its TO requirements, and that the size of various units is thus lower than prescribed by the TO.

In a period of declining strength such as that characteristic of the German Army since the beginning of 1943, known TO requirements do not constitute firm

evidence for estimating actual strength. The reorganization of German infantry divisions undertaken by the High Command in 1943 is clear evidence of the inability of the army to maintain its units at TO strength previously established. During the past year organizational changes in the German Army designed to cope with a growing manpower shortage have reduced TO requirements, but the decline in actual strength has been even greater. Not only do reductions of prescribed strength lag behind declines of actual strength, but there is also a considerable additional lag between the promulgation of a new TO and Allied knowledge of its existence, specifications, and the breadth of its application. Net permanent losses during the past year have outrun even the considerable reduction in prescribed strength initiated by the OKH in the fall of 1943. Actual strength on 1 June 1944 is accordingly estimated at 7 percent lower than the modified Table of Organization requirements.

During the past three months the German Army has shown signs of organizational disintegration requiring frequent improvisation and regrouping. Since 1 June 1944, the German Army has lost in prisoners alone about 500,000 men (300,000 in the West, 200,000 in the East). This is approximately equal to the number of prisoners taken by

all the Allies from the beginning of the war until 1 June 1944. Estimated battle losses of the German Army in killed number 370,000 on all fronts from 1 June 1944 to 1 September 1944. It is estimated that during the same period 70,000 men were wounded so severely as to be unfit for further military service. Permanent losses due to non-battle causes amounted to 35,000 during these three months. Thus total permanent losses suffered by the German Army in the past three months have been approximately 975,000, of which 150,000 may have been replaced by incoming recruits.

It is clear that, in the face of German net and permanent losses, and especially at the recent accelerated rate, the German Army has not been able to maintain TO requirements, which therefore cannot be used as a basis for estimating actual strength.